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APPLICATION NUMBER: 60/515,813 FILING DATE: October 30, 2003

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

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Method and System for Pro	viding Wireless Identification				
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## Method and system for providing wireless identification.

#### Field of the invention

The present invention is related to wireless communication networks. More specifically, a method and system for using a wireless communication device for identification purposes is disclosed.

#### Background of the invention

Nowadays the use of wireless communication devices like, for example, mobile phones or personal digital assistants (PDA) is widespread. With the emergence of new technologies the use of these devices is not limited to voice applications. A lot of new data communication applications are being developed, for instance based on a third generation telecommunication protocol, e.g. UMTS. It is generally accepted that in the near future mobile devices will be used for applications like buying tickets and making small payments. So far a majority of those areas have required that persons bring along a physical ticket – a special piece of paper or plastic card that was the token enabling the access to specific areas or identifying a bearer as someone accredited for specific actions / benefits. A major issue in the development of these systems is the secure identification of a user.

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On the other hand, RF-ID cards have started to gain a large popularity and are more and more being employed. RF-ID smartcards provide secure means of identifying persons carrying the cards. However, even with RF-ID technology the problem inherent to traditional ticketing remains: one ticket is required for one purpose. Also the ticket is tied to a physical medium of the card and cannot be delivered wirelessly over large distances. WO 02/49322 discloses a mobile telephone (10) including a device for checking the identity of a user in connection with various transactions. The device may include one or more of fingerprint scanning means, voice or password recognition means (e.g. using a microphone of the telephone), photograph display means (e.g. using a display of the telephone) or retina recognition means. The telephone also includes a short-range communication means for undertaking RFID smart card transactions. A user can load data representing money by

means of a telephone communication into a memory for use in subsequent transactions.

Alternatively, current transactions may be validated. The memory may have sub-divisions corresponding to different smart cards.

A drawback of this system is that the mobile phone itself needs to be adapted. All existing phones are not suitable to be used with the disclosed system.

#### Problem definition

Thus the prior art fails to disclose an easy to implement system and method for using the identification means of a RF-ID card in a wireless communication device.

#### Aim of the invention

The aim of the invention is to provide an easy to implement system and method for using the identification means of a RF-ID card in a wireless communication device.

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#### Summary of the invention

#### Brief description of the drawings

Fig 1 shows an example of a RF-ID tag enhanced SIM card.

Fig 2 shows an example of how a RF-ID tag can communicate with the SIM card.

Fig 3 shows an example of how a wireless device comprising a RF-ID tag can be used with a reader.

#### 25 <u>Detailed description of the invention</u>

Figure 1 shows a RF-ID enhanced SIM card. A RF-ID tag is added to the traditional SIM card that is needed to operate a mobile phone. With a RF-ID enhanced SIM card it is not necessary to adjust a wireless device, to provide the use of RF-ID technology. The owner of a wireless device only has to change his SIM card, something he can do quite easily.

Figure 2 shows how the RF-ID tag can communicate with the SIM card. In this way it is possible to receive new data for the RF-ID tag over the wireless communication network, e.g. by SMS. That means that ID codes (virtual tickets) can be delivered to the RF-ID enhanced SIM card through existing OTA mechanisms, and the phone itself can be used as a carrier for all virtual tickets and loyalty cards.

With this it will be possible to offer applications as:

- M-Ticketing: access to concerts, cinemas, sport centres, ski-areas and other various venues
- Access control: temporary or permanent validity code can be sent to visitors which
  grants them access for a certain period to business buildings. Access rights can be
  regulated via OTA SMS very flexible for buildings with a large number of visitors or
  fast fluctuating workforce (virtual access card).
  - M-Loyalty cards / virtual membership cards: a permanent code can be sent to persons holding a specific membership information like an Airmiles number or membership information for video rental store.
  - Micro payments: pre-paid: RF-ID chip can act as a wireless chipknip. Putting extra
    money will be done wirelessly. Existing chipknip terminals could be refitted for
    wireless. Post-paid: IMSI / KI / own ID could be used for post paid invoicing.

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Figure 3 shows an example of how a RF-ID tag reader can be used to access the data on the RF-ID tag in the wireless device.

#### **Claims**

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#### What is claimed is:

1. A SIM card comprising an RF-ID tag.

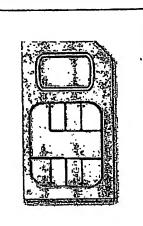
A method comprising:
 receiving data over an air interface; and
 storing the data in an RF-ID tag of a SIM card.

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3. The method of claim 2, further comprising reading the data from the RF-ID tag.

## Figure 1

# RIF-IID Emhanced SIM - The Concept



- · The hardwares
  - · SM and with an added RF-ID difp
  - · Readers (possible, stationary, built-in
  - vending meditus)

     Chip is built into the SIM card, ID can be sent throughing. SMS/OTA (e.g., this continued by and phonon must be presented (and seamed) at the delivery point (fisket collection)
- Applications fields e.g. 8

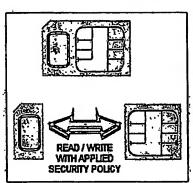
   Mistighaning

   Mistopayments

  - o · Access control

Figure 2

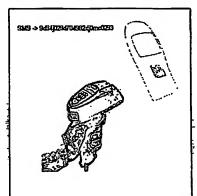
## RIF-ID Enhanced SIM - How it works



- INFID chip can communicate
  with manufacturers area on
  the SIM chip
- RFID chip em send out SMI ID: RII/IMSI or own permanent ID
- INFIDelity emalso access memory portion of SIM eard and read information delivered by SMS

Figure 3

## IRIF-IID IEnhanced SIM - How it works



- ॰ पित्रम खात purchase e-ticket पत्नीतु बकु. Internet
- As a result one-off access
  code can be sent through
  specially formatted SMS OTA
  message resulting in
  modification of the portion of
  SIN card memory.
- Sini circumentory.

   When passing man RF4D

  reader—access code will be

  sent back to the reader

  resulting in granting of access.

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